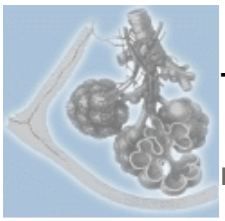

Tuesday , 04 September 2012

Halle A-31 Session 407 12:50-14:40
TP Thematic Poster Session : COPD beyond tobacco

P4009

The effects of atorvastatin in mustard gas exposed patients with chronic obstructive pulmonary disease: A randomized controlled trail

H. Ghobadi, S. M. Lari, F. Pourfarzi, A. Mahmoudpour, M. Ghanei (Ardabil, Mashad, Tehran, Islamic Republic Of Iran)

Background: Statins have anti-inflammatory effects in patients with chronic obstructive pulmonary disease. This study designed to evaluate the effects of atorvastatin on serum highly sensitive C-reactive protein (hs-CRP) and pulmonary function in sulfur mustard (SM) exposed patients with chronic obstructive pulmonary disease.
Methods: In a double blind clinical trial, 50 patients with chronic obstructive pulmonary disease due to sulfur mustard and high hs-CRP, randomly entered in this study. 45 patients completed the study (n=22, placebo and n=23, atorvastatin). Serum hs-CRP, pulseoximetry, spirometery and six-minute walk distance test (6MWDT) were measured, COPD assessment test (CAT) and St George's respiratory questionnaire (SGRQ) were completed by patients at the beginning of trial and after 9 weeks of prescription of 40 mg/day atorvastatin or placebo. At 4th week, pulseoximetry, spirometry and 6MWDT were measured.
Results: At 4th week, there was no improvement in the atorvastatin group compared to the placebo group in SPO2, FEV1, and 6MWDT (p=0.79, p=0.12, p=0.12 respectively). At 9th week, there was no improvement with atorvastatin in serum hs-CRP, SPO2, FEV1 and 6MWDT compared to the placebo (p=0.35, p=0.28, p=0.94, p=0.43 respectively) but there was an improvement with atorvastatin in quality of life (with CAT score, P<0.001 and SGRQ total score, P=0.004).
Conclusion: Atorvastatin does not alter serum hs-CRP and lung functions but may improve quality of life in SM-injured patients with chronic obstructive pulmonary disease.
Key Word: Sulfur mustard, Atorvastatin, hs-CRP, Chronic obstructive pulmonary disease.